RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

10/537,088
TFWP
08/02/2006

ENTERED



IFWP

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PATENT APPLICATION: US/10/537,088
                                                             TIME: 09:11:00
                     Input Set : A:\16096.seq.txt
                     Output Set: N:\CRF4\08022006\J537088.raw
      3 <110> APPLICANT: XENOME LTD
             LEWIS, Richard James
      5
             ALEWOOD, Paul Francis
             ALEWOOD, Dianne
      7
             PALANT, Elka
     9 <120> TITLE OF INVENTION: NOVEL CHI-CONOTOXIN PEPTIDES (-II)
     11 <130> FILE REFERENCE: 12373580/JGC
C--> 13 <140> CURRENT APPLICATION NUMBER: US/10/537,088
C--> 13 <141> CURRENT FILING DATE: 2005-06-02
     13 <150> PRIOR APPLICATION NUMBER: US 60/430307
     14 <151> PRIOR FILING DATE: 2002-12-02
     16 <160> NUMBER OF SEQ ID NOS: 215
     18 <170> SOFTWARE: PatentIn version 3.2
     20 <210> SEO ID NO: 1
     21 <211> LENGTH: 13
     22 <212> TYPE: PRT
    23 <213> ORGANISM: Conus marmoreus
     26 <220> FEATURE:
     27 <221> NAME/KEY: MISC FEATURE
     28 <222> LOCATION: (12)..(12)
     29 <223> OTHER INFORMATION: Xaa is 4-hydroxyproline
     31 <400> SEQUENCE: 1
W--> 33 Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
    37 <210> SEQ ID NO: 2
    38 <211> LENGTH: 13
     39 <212> TYPE: PRT
    40 <213> ORGANISM: Conus marmoreus
    43 <220> FEATURE:
     44 <221> NAME/KEY: MISC FEATURE
    45 <222> LOCATION: (12)..(12)
     46 <223> OTHER INFORMATION: Xaa is 4-hydroxyproline
     48 <400> SEQUENCE: 2
W--> 50 Val Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
    51 1
    54 <210> SEO ID NO: 3
    55 <211> LENGTH: 10
    56 <212> TYPE: PRT
    57 <213> ORGANISM: Artificial Sequence
    59 <220> FEATURE:
    60 <223> OTHER INFORMATION: synthetic
    63 <220> FEATURE:
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RAW SEQUENCE LISTING

64 <221> NAME/KEY: MISC FEATURE

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PATENT APPLICATION: US/10/537,088
                                                              TIME: 09:11:00
                     Input Set : A:\16096.seq.txt
                     Output Set: N:\CRF4\08022006\J537088.raw
     65 <222> LOCATION: (8)..(9)
     66 <223> OTHER INFORMATION: Xaa is independently absent or represent any amino acid
residue
     67
              except Cys
     69 <400> SEQUENCE: 3
W--> 71 Cys Cys Gly Tyr Lys Leu Cys Xaa Xaa Cys
     75 <210> SEQ ID NO: 4
     76 <211> LENGTH: 14
     77 <212> TYPE: PRT
     78 <213> ORGANISM: Artificial Sequence
     80 <220> FEATURE:
     81 <223> OTHER INFORMATION: synthetic
     84 <220> FEATURE:
     85 <221> NAME/KEY: MISC FEATURE
     86 <222> LOCATION: (1)..(1)
     87 <223> OTHER INFORMATION: Xaa is selected from Trp, DTrp, Tyr, Phe, hPhe, Ala,
     88
              O-methyl-L-tyrosine, Arg, benzoyl, naphthyl, ornithine, L or D
     89
              pyroglutamic acid and a deletion
     91 <220> FEATURE:
     92 <221> NAME/KEY: MISC_FEATURE
     93 <222> LOCATION: (2)..(2)
     94 <223> OTHER INFORMATION: Xaa is selected from Arg, Ala, Asn, Lys, Phe, L-beta-
homolysine,
     95
              L-ornithine, Lys, DArg, L-norleucine, Dlys, L-Lysine(dimethyl),
     96
              DAsn, Thr, 2-aminobenzoyl (anthraniloyl), naphthyl, L-citrulline,
              Val, Tyr, Trp, L or D-pyroglutamic acid or a deletion
     99 <220> FEATURE:
     100 <221> NAME/KEY: MISC FEATURE
     101 <222> LOCATION: (3)..(3)
     102 <223> OTHER INFORMATION: Xaa is selected from Gly, Asp, Lys, Arg, Ala, Nle, Ser or
Phe
     104 <220> FEATURE:
     105 <221> NAME/KEY: MISC FEATURE
     106 <222> LOCATION: (4)..(4)
     107 <223> OTHER INFORMATION: Xaa is selected from Val, Leu, Nle, Ile, Thr, Ala, Asn, Trp,
Phe
     108
               and Abu
     110 <220> FEATURE:
     111 <221> NAME/KEY: MISC FEATURE
     112 <222> LOCATION: (12)..(13)
     113 <223> OTHER INFORMATION: Xaa are independently absent or represent any amino acid-
residue
     114
               except Cys
     116 <400> SEQUENCE: 4
W--> 118 Xaa Xaa Xaa Xaa Cys Cys Gly Tyr Lys Leu Cys Xaa Xaa Cys
     119 1
                                              10
     122 <210> SEQ ID NO: 5
     123 <211> LENGTH: 14
     124 <212> TYPE: PRT
     125 <213> ORGANISM: Artificial Sequence
     127 <220> FEATURE:
     128 <223> OTHER INFORMATION: synthetic
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RAW SEQUENCE LISTING

131 <220> FEATURE:

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PATENT APPLICATION: US/10/537,088
                                                              TIME: 09:11:00
                     Input Set : A:\16096.seq.txt
                     Output Set: N:\CRF4\08022006\J537088.raw
     132 <221> NAME/KEY: MISC FEATURE
     133 <222> LOCATION: (1)..(1)
     134 <223> OTHER INFORMATION: Xaa is selected from L or D-pyroglutamic acid, Pro,
               4-hydroxyproline or an N-acetylated amino acid residue
     137 <220> FEATURE:
     138 <221> NAME/KEY: MISC_FEATURE
     139 <222> LOCATION: (2)..(2)
     140 <223> OTHER INFORMATION: Xaa is selected from Arg, DArg, Asn, DAsn, Lys, Thr, DLys,
               L-beta-homolysine, L-ornithine, L-norleucine,
               L-lysine(dimethyl), 2-aminobenzoyl(anthraniloyl), naphthyl,
     142
               L-citrulline, Val and a deletion
     145 <220> FEATURE:
     146 <221> NAME/KEY: MISC FEATURE
     147 <222> LOCATION: (3)..(3)
     148 <223> OTHER INFORMATION: Xaa is selected from Gly, Asp, Lys, Arg, Ala, L-norleucine
and
     149
               Ser
     151 <220> FEATURE:
     152 <221> NAME/KEY: MISC FEATURE
     153 <222> LOCATION: (4)..(4)
     154 <223> OTHER INFORMATION: Xaa is selected from Val, Leu, L-norleucine, Ile, Thr, Ala
and
     155
               L-alpha-aminobutyric acid
     157 <220> FEATURE:
     158 <221> NAME/KEY: MISC FEATURE
     159 <222> LOCATION: (12)..(13)
     160 <223> OTHER INFORMATION: Xaa are independently absent or represent any amino acid
residue
     161
               except Cys
     163 <400> SEQUENCE: 5
W--> 165 Xaa Xaa Xaa Cys Cys Gly Tyr Lys Leu Cys Xaa Xaa Cys
     166 1
     169 <210> SEQ ID NO: 6
     170 <211> LENGTH: 13
     171 <212> TYPE: PRT
     172 <213> ORGANISM: Artificial Sequence
     174 <220> FEATURE:
     175 <223> OTHER INFORMATION: synthetic
     178 <220> FEATURE:
     179 <221> NAME/KEY: MISC FEATURE
     180 <222> LOCATION: (1)..(1)
    181 <223> OTHER INFORMATION: Xaa is selected from Arg, DArg, L-lysine(dimethyl), L-
ornithine
     182
               or L-beta-homolysine
     184 <220> FEATURE:
     185 <221> NAME/KEY: MISC_FEATURE
     186 <222> LOCATION: (2)..(2)
     187 <223> OTHER INFORMATION: Xaa is selected from Gly, Asp, Lys, Arg, Ala, L-norleucine
and
     188
               Ser
     190 <220> FEATURE:
     191 <221> NAME/KEY: MISC FEATURE
     192 <222> LOCATION: (3)..(3)
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RAW SEQUENCE LISTING

193 <223> OTHER INFORMATION: Xaa is selected from Val, Leu, L-norleucine, Ile, Thr, Ala and

TIME: 09:11:00

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Input Set : A:\16096.seq.txt
                     Output Set: N:\CRF4\08022006\J537088.raw
               L-alpha-aminobutyric acid
    194
     196 <220> FEATURE:
     197 <221> NAME/KEY: MISC FEATURE
    198 <222> LOCATION: (11)..(12)
     199 <223> OTHER INFORMATION: Xaa are independently absent or represent any amino acid
residue
    200
               except Cys
     202 <400> SEQUENCE: 6
W--> 204 Xaa Xaa Xaa Cys Cys Gly Tyr Lys Leu Cys Xaa Xaa Cys
     208 <210> SEQ ID NO: 7
     209 <211> LENGTH: 13
     210 <212> TYPE: PRT
     211 <213> ORGANISM: Conus marmoreus
     214 <220> FEATURE:
     215 <221> NAME/KEY: MISC_FEATURE
     216 <222> LOCATION: (12)..(12)
     217 <223> OTHER INFORMATION: Xaa is 4-hydroxyproline
     219 <400> SEQUENCE: 7
W--> 221 Gly Val Cys Cys Gly Tyr Lys Leu Cys Cys His Xaa Cys
     222 1
     225 <210> SEQ ID NO: 8
     226 <211> LENGTH: 11
     227 <212> TYPE: PRT
     228 <213> ORGANISM: Conus marmoreus
     231 <220> FEATURE:
     232 <221> NAME/KEY: MISC FEATURE
     233 <222> LOCATION: (10)..(10)
     234 <223> OTHER INFORMATION: Xaa is 4-hydroxyproline
     236 <400> SEQUENCE: 8
W--> 238 Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
     239 1
     242 <210> SEQ ID NO: 9
     243 <211> LENGTH: 12
     244 <212> TYPE: PRT
     245 <213> ORGANISM: Conus marmoreus
     248 <220> FEATURE:
     249 <221> NAME/KEY: MISC_FEATURE
     250 <222> LOCATION: (11)..(11)
     251 <223> OTHER INFORMATION: Xaa is 4-hydroxyproline
     253 <400> SEQUENCE: 9
W--> 255 Gly Ile Cys Cys Gly Val Ser Phe Cys Tyr Xaa Cys
     256 1
                                              10
     259 <210> SEQ ID NO: 10
     260 <211> LENGTH: 11
     261 <212> TYPE: PRT
     262 <213> ORGANISM: Artificial Sequence
     264 <220> FEATURE:
     265 <223> OTHER INFORMATION: synthetic
     268 <220> FEATURE:
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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/537,088

RAW SEQUENCE LISTING DATE: 08/02/2006 PATENT APPLICATION: US/10/537,088 TIME: 09:11:00 Input Set : A:\16096.seq.txt Output Set: N:\CRF4\08022006\J537088.raw 269 <221> NAME/KEY: MOD_RES 270 <222> LOCATION: (11)..(11) 271 <223> OTHER INFORMATION: AMIDATION 273 <400> SEQUENCE: 10 275 Ala Cys Cys Gly Tyr Lys Leu Cys Ser Pro Cys 276 1 279 <210> SEQ ID NO: 11 280 <211> LENGTH: 13 281 <212> TYPE: PRT 282 <213 > ORGANISM: Artificial Sequence 284 <220> FEATURE: 285 <223> OTHER INFORMATION: synthetic 287 <400> SEQUENCE: 11 289 Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Leu Pro Cys 290 1 293 <210> SEQ ID NO: 12 294 <211> LENGTH: 12 295 <212> TYPE: PRT 296 <213> ORGANISM: Artificial Sequence 298 <220> FEATURE: 299 <223> OTHER INFORMATION: synthetic 301 <400> SEQUENCE: 12 303 Ser Val Cys Cys Gly Tyr Lys Leu Cys Phe Pro Cys 307 <210> SEQ ID NO: 13 308 <211> LENGTH: 14 309 <212> TYPE: PRT 310 <213> ORGANISM: Artificial Sequence

324 <223> OTHER INFORMATION: Xaa is 4-hydroxyproline 326 <400> SEQUENCE: 13 W--> 328 Tyr Arg Gly Leu Cys Cys Gly Xaa Lys Leu Cys Arg Xaa Cys

319 <223> OTHER INFORMATION: Xaa is O-methyl-L-tyrosine

- 332 <210> SEQ ID NO: 14
 - 333 <211> LENGTH: 14
 - 334 <212> TYPE: PRT

312 <220> FEATURE:

316 <220> FEATURE:

321 <220> FEATURE:

335 <213> ORGANISM: Artificial Sequence

313 <223> OTHER INFORMATION: synthetic

317 <221> NAME/KEY: MISC FEATURE 318 <222> LOCATION: (8)..(8)

322 <221> NAME/KEY: MISC_FEATURE 323 <222> LOCATION: (13)..(13)

- 337 <220> FEATURE:
- 338 <223> OTHER INFORMATION: synthetic
- 341 <220> FEATURE:
- 342 <221> NAME/KEY: MISC FEATURE

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 08/02/2006 PATENT APPLICATION: US/10/537,088 TIME: 09:11:01

Input Set : A:\16096.seq.txt

Output Set: N:\CRF4\08022006\J537088.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

```
Seq#:1; Xaa Pos. 12
Seq#:2; Xaa Pos. 12
Seq#:3; Xaa Pos. 8,9
Seq#:4; Xaa Pos. 1,2,3,4,12,13
Seq#:5; Xaa Pos. 1,2,3,4,12,13
Seq#:6; Xaa Pos. 1,2,3,11,12
Seq#:7; Xaa Pos. 12
Seq#:8; Xaa Pos. 10
Seq#:9; Xaa Pos. 11
Seq#:13; Xaa Pos. 8,13
Seq#:14; Xaa Pos. 4,8,13
Seq#:15; Xaa Pos. 1,5,9,14
Seq#:16; Xaa Pos. 8,13
Seq#:17; Xaa Pos. 1,4,8,13
Seq#:18; Xaa Pos. 5,9,14
Seq#:19; Xaa Pos. 1,3,7,9,12
Seq#:20; Xaa Pos. 8,13
Seq#:21; Xaa Pos. 8,13
Seq#:22; Xaa Pos. 5,9,14
Seq#:23; Xaa Pos. 2,5,9,14
Seq#:24; Xaa Pos. 8
Seq#:25; Xaa Pos. 8,13
Seq#:26; Xaa Pos. 13
Seq#:27; Xaa Pos. 1,3,9,12
Seq#:28; Xaa Pos. 5,9,14
Seq#:29; Xaa Pos. 8
Seq#:30; Xaa Pos. 13
Seq#:31; Xaa Pos. 7
Seq#:32; Xaa Pos. 1,3,7,12
Seq#:33; Xaa Pos. 13
Seq#:34; Xaa Pos. 8,13
Seq#:35; Xaa Pos. 7,12
Seq#:36; Xaa Pos. 8
Seq#:37; Xaa Pos. 8
Seq#:39; Xaa Pos. 13
Seq#:40; Xaa Pos. 8
Seq#:41; Xaa Pos. 1,5,9,14
Seq#:42; Xaa Pos. 1,3,7,9,12
Seq#:43; Xaa Pos. 13
Seq#:44; Xaa Pos. 7,12
Seq#:45; Xaa Pos. 1,3,7,12
Seq#:46; Xaa Pos. 8,13
Seq#:47; Xaa Pos. 3,7,9,12
Seg#:48; Xaa Pos. 1,3,7,9,12
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RAW SEQUENCE LISTING ERROR SUMMARY DATE: 08/02/2006 PATENT APPLICATION: US/10/537,088 TIME: 09:11:01

Input Set : A:\16096.seq.txt

Output Set: N:\CRF4\08022006\J537088.raw

Seq#:49; Xaa Pos. 1,9,12 Seq#:50; Xaa Pos. 4 Seq#:51; Xaa Pos. 1,7,12 Seq#:52; Xaa Pos. 1,3,9,12 Seq#:53; Xaa Pos. 8 Seq#:55; Xaa Pos. 5,9,14 Seq#:56; Xaa Pos. 10

VERIFICATION SUMMARY DATE: 08/02/2006 PATENT APPLICATION: US/10/537,088 TIME: 09:11:01

Input Set : A:\16096.seq.txt
Output Set: N:\CRF4\08022006\J537088.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application No L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date L:33 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0 L:50 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0 L:71 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0 L:118 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0 L:165 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0 L:204 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0 L:221 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0 L:238 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0 L:255 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0 L:328 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0 L:358 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0 L:393 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0 L:418 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0 L:453 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0 L:483 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0 L:523 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0 L:548 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0 L:573 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:0 L:603 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:0 L:638 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:0 L:663 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:0 L:688 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:0 L:708 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:0 L:743 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:0 L:773 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0 L:793 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:0 L:813 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:0 L:833 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:0 L:868 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:0 L:888 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:0 L:918 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:0 L:943 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:0 L:963 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:0 L:983 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:0 L:1017 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:0 $L:1037\ M:341\ W:$ (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:0 L:1076 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:0 L:1116 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:0 L:1136 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43 after pos.:0 L:1165 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:44 after pos.:0 L:1200 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45 after pos.:0 L:1225 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:0 L:1260 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47 after pos.:0 L:1300 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48 after pos.:0 L:1330 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:49 after pos.:0 L:1354 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:50 after pos.:0

VERIFICATION SUMMARYDATE: 08/02/2006PATENT APPLICATION: US/10/537,088TIME: 09:11:01

Input Set : A:\16096.seq.txt

Output Set: N:\CRF4\08022006\J537088.raw

L:1384 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51 after pos.:0 L:1423 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:52 after pos.:0 L:1443 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:53 after pos.:0 L:1487 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:55 after pos.:0